F·A·A·M facility for airborne atmospheric measurements

FLIGHT FOLDER

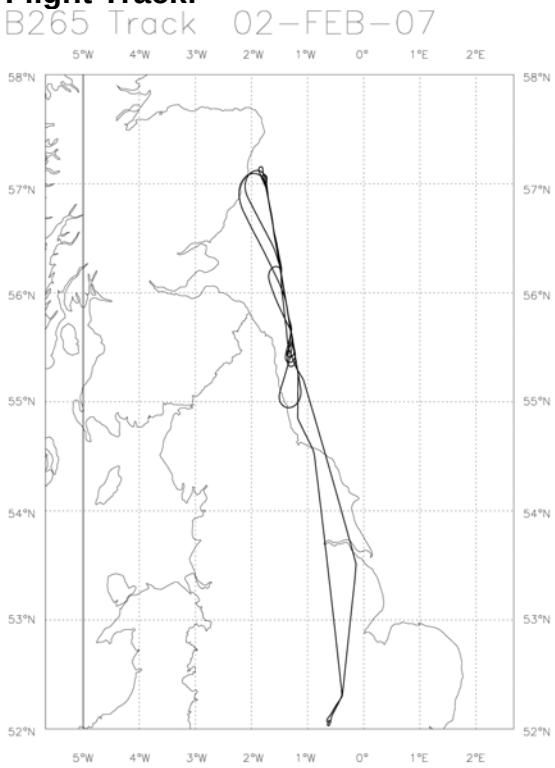
Flight No.:	B265
Date:	02 Feb 2007
Take Off	07:55:28
Landing:	13:05:56
Flight Time	5h10m28

Campaign: WINTEX - IASI

Operating Area: N Sea

POB	Position	Name	Institute
1	Captain	Alan Roberts	Directflight
2	Co-pilot	Alan Foster	Directflight
3	CCM	Dawn Quinn	Directflight
4	Mission Scientist	Phil Brown	Met Office
5	Flight Manager	Alan Woolley	FAAM
6	Cloud Physics	Jim Crawford	FAAM
7	MARSS / FWVS	James Bowles	Met Office
8	ARIES	Stuart Rogers	Met Office
9	SWS	Jeff Brown	Met Office
10	AVAPS / CCM2	Doug Anderson	FAAM
11	Mission Scientist 2	Richard Cotton	Met Office
12	Observer	Tom Blackmore	Met Office
13			
14			
15			
16			
17			
18			
19			
20			

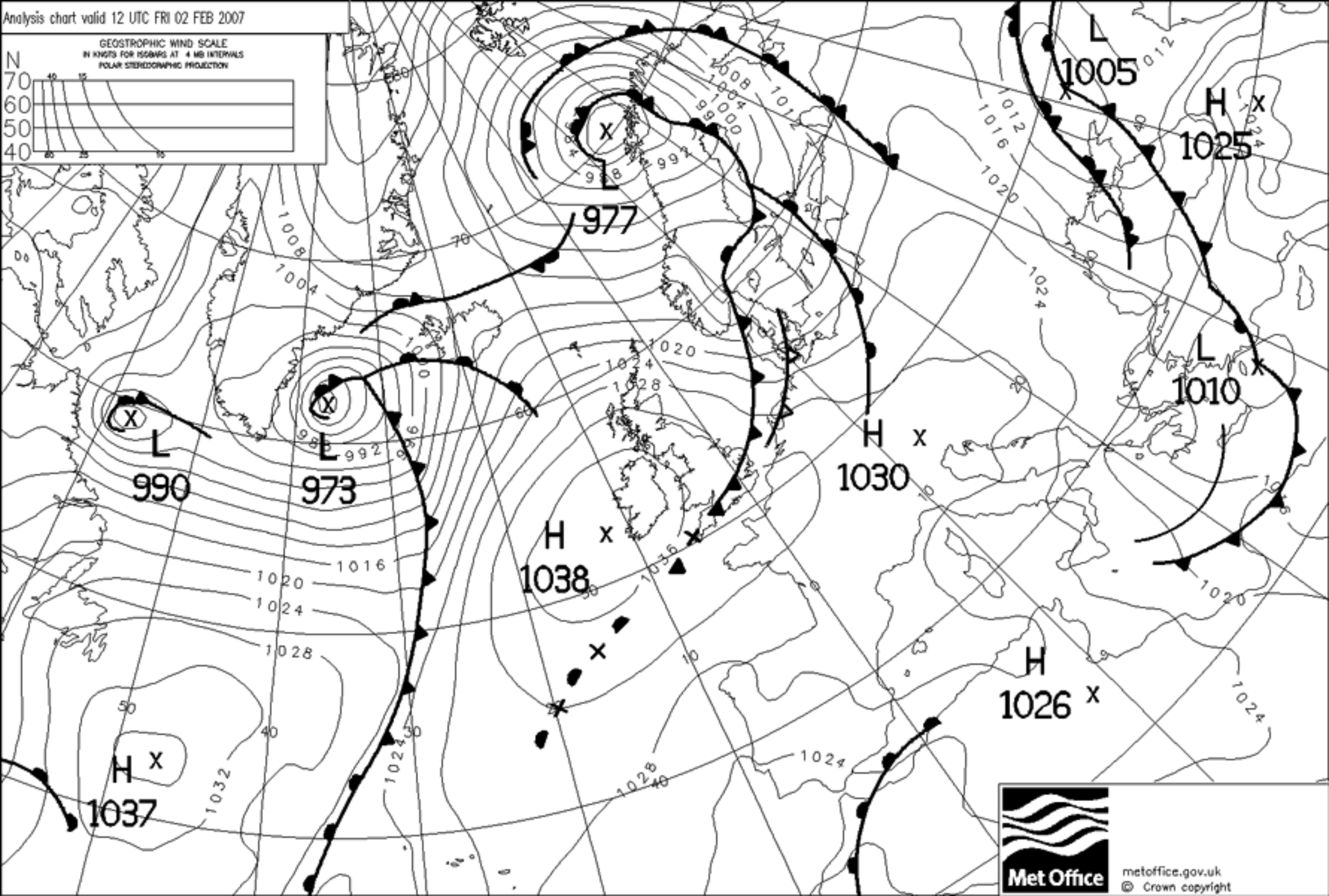
Flight Track:



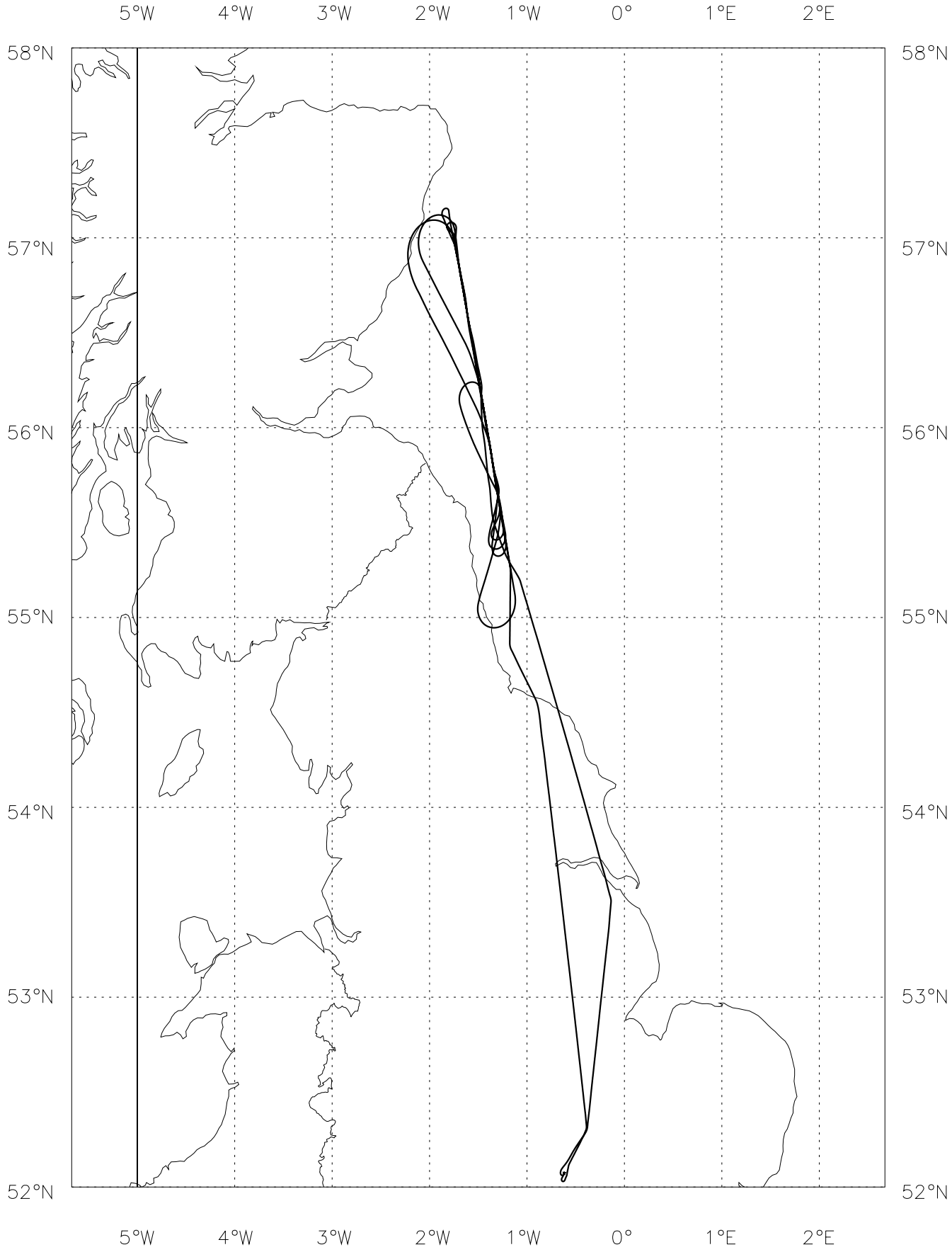
FLIGHT SUMMARY

Flight No b265
Date: 2/2/07
Project: IASI
Location: North Sea

Start Time	End Time	Event	Height (s)	Hdg	Comments
074425		engine start	-.13 kft	110	
074636		power change	-.13 kft	110	
074747		taxy	-.13 kft	110	start
075528		T/O	-.14 kft	211	from Cranfield
075807		JW / Nevz zero	3.6 kft	030	
075907		Heimann	5.2 kft	034	exposed
080935		bbr	15.0 kft	000	retract
083609		video started	3.9 kft	326	ufc/dfc
084016	090854	Run 1	-.34 - -.31 kft	335	
084446		bbr	-.35 kft	347	retract
084457		low cloud	-.34 kft	344	above
091202	095552	Profile 1	-.35 - 33.0 kft	189	
093234		Profile 1	20.0 kft	177	interrupt
093444		Profile 1	20.0 kft	006	resume
094548		Profile 1	29.0 kft	343	interrupt
094936		Profile 1	29.0 kft	162	resume
095705		bbr	33.0 kft	277	retract
095901	101828	Run 2	33.0 - 33.1 kft	355	
095901		Sonde 1	33.0 kft	346	
100203		Sonde 2	33.0 kft	338	
100504		Sonde 3	33.0 kft	338	
100804		Sonde 4	33.0 kft	339	
101255		Sonde 5	33.0 kft	340	
101543		Sonde 6	33.0 kft	339	
102328	102809	Profile 2	33.1 - 35.0 kft	174	
102529		Sonde 7	33.8 kft	159	
102815	103924	Run 3	35.1 kft	156	
102836		Sonde 8	35.0 kft	157	
103136		Sonde 9	35.0 kft	162	
103437		Sonde 10	35.0 kft	175	
103855		Sonde 11	35.0 kft	177	
104349	110654	Run 4	35.0 kft	351	
104421		Sonde 12	35.0 kft	006	
104717		Sonde 13	35.0 kft	007	
105018		Sonde 14	35.0 kft	340	
105318		Sonde 15	35.0 kft	344	
105819		Sonde 16	35.0 kft	341	
110119		Sonde 17	35.0 kft	340	
110633		Sonde 18	35.1 kft	340	
111142	112345	Run 5	35.1 - 35.0 kft	158	
112624	120131	Profile 3	35.0 - -.37 kft	356	
112635		bbr	35.0 kft	359	extend
115445		Profile 3	1.8 kft	345	interrupt
115635		Profile 3	1.8 kft	161	resume
120223	122331	Run 6	-.33 - -.42 kft	174	
120646		bbr	-.39 kft	174	retract
123612		bbr	15.0 kft	175	extend
130556		Land	-.20 kft	028	Cranfield
131133		standstill	-.20 kft	000	52'04.36N, 0'37.50W


Analysis chart valid 12 UTC FRI 02 FEB 2007
GEOSTROPHIC WIND SCALE
IN KNOTS FOR ISOBARS AT 4 MB INTERVALS
POLAR STEREOGRAPHIC PROJECTION
N
70
60
50
40
L
977
L
990
L
973
L
1005
H
1025
H
1030
H
1038
H
1026
H
1037
L
1010
1004
1008
1012
1016
1020
1024
1028
1032
1036
Met Office
metoffice.gov.uk
© Crown copyright

B265 Track 02-FEB-07



Sortie brief: METOP (IASI) overpass over ocean
Mission Scientist: Phil Brown Flight B265 02/02/207

Aim: To measure infrared radiances and the state of the atmosphere for calibration /validation of IASI on METOP-A satellite.

Location: Over open ocean. The mission scientist will determine the area of operations so as to operate in clear skies.

Weather conditions: Completely cloud free conditions at all altitudes are highly desirable; small amounts of cloud in limited areas are acceptable.

Key instruments: ARIES; AVAPS (15 sondes to be launched); temperature and water vapour sensors; Core Chem, MARSS, SAWS hygrometer, FWVS.

Radiation instrument operators' special instructions:
ARIES: At high level mainly nadir, short view of zenith during one run.
At low level one or (preferably) two short views at nadir otherwise mainly zenith.
HEIMANN: Mission scientist should ensure Flight Manager performs short cal of Heimann during the 100ft run(s) (at start or end) but that this does NOT clash with the ARIES nadir views.

Fixed Points: The runs will be over fixed ground positions in clear sky conditions. This sortie is NOT directly under the sub-satellite track so orientation is not critical and should be decided to maximize clear conditions.

A =
B =

1. Take off, transit to operating area arriving at low level (45 mins)
2. Start straight and level run from A to B at lowest permitted altitude (25 mins)
3. Profile ascent from lowest permitted altitude to max altitude at 1000ft/min to finish at point B (45 mins) **Note** that once fuel has been burnt if extra height can be gained then profile up to new max altitude between straight and level runs.
4. Start run from B to A (15 mins)
5. Start run from A to B launching sonde at start of run then every 3 mins (15 mins)
6. Start run from B to A to coincide with **IASI overpass** 1018Z launching sonde at start of run then every 3 mins (15 mins)
7. Start run from A to B launching sonde at start of run then every 3 mins (15 mins)
8. Start run from B to A (15 mins)
9. Start of profile descent from max altitude to lowest permitted altitude @ 1000ft/min to finish at point A (35 mins)
10. Start straight and level run between A and B at lowest permitted altitude (25 mins)
11. Transit home (45 mins)
12. Land (Total sortie time 4:55)

Mission scientist Debrief Flight No. B265

Phil Brown 2 Feb 2007

Planned as a flight to measure up- and down-welling radiances in clear air within the range of the IASI instrument on the METOP satellite.

Transit at 15000ft up the east coast. Came under the edge of upper level cloud at approx 54.2 degN, 0.5 degW as anticipated prior to take-off. Clear conditions ahead and into the experimental area (Firth of Forth region).

Descent to 100ft for near surface run (Run 1). Near the start of this, some minor track adjustments were undertaken to avoid small cloud patches. Apparently clean airmass as judged by PCASP and CN counter outputs. Also low count rate on both SID probes. At N end of run some thin cirrus visible over land just to the east.

Profile ascent on southerly heading to 33000ft. First leg at this altitude was again northbound and sonde dropping was commenced in order that they be concentrated around the satellite overpass time of 1016Z. 6 sondes in total along this leg. In the latter half of the run, some thin cirrus was seen below and clearly identified in Heimann upwelling brightness temperatures.

Profile ascent to 35000ft in order to maximise altitude. Next leg flown on southbound heading. Previous cirrus streak clearly visible below and now to the left (E) of current track. 5 sondes along this leg. Further leg flown at this altitude, northbound and briefly over land during the wide turn at the start. 7 sondes in total along this leg.18 sondes total for the flight and all apparently OK. Final sonde launched at c. 1106, ie. 50 min after the satellite overpass. One further run at 35000ft, southbound but no further sonde drops.

Profile descent to 100ft on northerly heading, followed by southbound run at 100ft. Climb to return transit altitude.

Overall, the sortie appeared to be very successful with all the required components being achieved. The number of high-level runs was reduced compared to normal sortie of this type, in order to save time just prior to the satellite overpass time. The required clear-sky conditions were generally apparent throughout, with just a thin band of thin cirrus crossing the region during the first high-altitude runs. The period of time for which upwelling radiances will sample this cloud band may be clearly identified from Heimann radiometer data. Post flight note: this cloud band was also clearly visible in visible and IR satellite imagery.

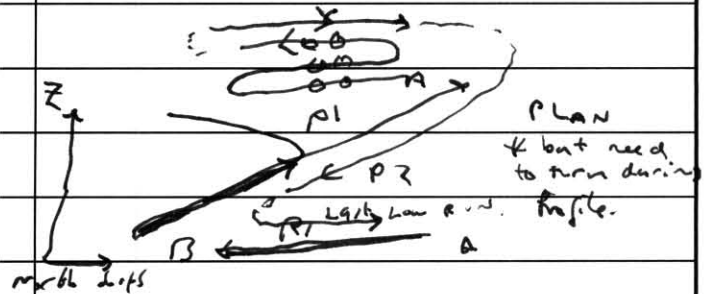
Note also that turns at the end of each high-level run were towards the west (ie. Towards the land). The turn angle was shallow in order to maintain contact with dropsondes, leading to large turn radius that carried the flight track close to land at each end of the run. At the start of the subsequent run, heading was adjusted so as to bring the aircraft back onto the nominal track between fixed points. Some of the data at these times may have sampled sea surface regions closer to the coast that may have temperatures different from those sampled during the 100ft altitude legs.

General synoptic situation.

Anticyclone centred to the SW of Ireland with a warm sector over the UK at midday. Warm front oriented roughly SW to NE crossing the E.coast during the morning to leave clearing skies over near-coastal waters.

Mission Scientist's Log

Flight No **B** 265 Date 2/2/07 Name R. Cotton Page 2 of 5

GMT	Run / Profile	Height	Hdg	GPS Position	Remarks (clouds, weather, visibility, winds, sea state etc.)
0840/8	R1st	100 ft	333	55°24.0 1°1.0	Low level Run
					left of track by 2m to avoid
					single patch of Ac 0/8 Ci.
0841 00		T: 7.8°C	Td = 2.8°C		passing Ac to right of ac.
0844 20		Wind	9 knots	286°	Just avoiding Ac /Sc
					one-flight Sc ahead. just
0849..	0850	30	55°54.0 1°24.0		30 under stratus.
		T= 7.5°C	Td:	3.5°C	Clear ahead now
					
0908 51	R2 code	At B			
0912 00	B1st	5.1ft			Clear sky. V. little cloud.
0915		A035			Poor vis at 200 ft.
					thin diffuse hazy layer.
					But 0/8 Ci above. Some low cloud over coast.
0924..		FL114		T: -16°C	Td: -37°C
0932 20		FL200			Interrupt P1 to turn
					low/mid cloud to left. but drifting east
					Tephi very dry 700 mb upwards
0934 40	P1 restart	FL200		T: -27	, Td: -47.

Mission Scientist's Log

Flight No **B**.265..... Date ...2/2/07..... Name .....R. CUTTER..... Page .3..... of .5.....

GMT	Run / Profile	Height	Hdg	GPS Position	Remarks (clouds, weather, visibility, winds, sea state etc.)
094100		FL260	346	55°48.0 / 018.0	wind 48kt / 337 T: -42°C Td: -52°C
					In clear air o/f Ci: some mid-level in distance * which we passed under in R1.
094245		FL272	turn-level.		
		FL262	still v. turb.		
094640	P1 interrupt		turn. SFL	290	some Sc to east, and some over land.
094940	P1 recommence		still	dry. clear above	
095550	P1 end	FL330		T: -55	Td: -61
095900	R2 start	FL330			Sonde Launch run.
		T: -55.6	Td:	-64°C	Still in clear air. with lone isolated cloud
		wind 43/90			~~Layer~~ mostly will high/ mid-level cloud
					095959 100204 1005 1008 x6
Thin Ci miles		over pt. 0,	last tenth		A Sonde 1 Sonde 2 S3 1012255 1015540 S6
					Sonde 2 no GPS
					mid level cloud referred to above
10 1100					~~[illegible]~~ just starting to be below aircraft now
					More high mid-level cloud at Northern end.
					Point B is under Ci / Cs cloud.
101934	R2 end	FL330	T: -56, Td:	-63	Gentle turn.
					Initially missing Ci because starting orbit to avoid cloud.
10	R3 start	FL350			Sonde launched during climb to FL350
		Uphill	off.	Turb-b.	b.
104735				In clear	air no cloud under / below
					Extending run south past A a
	R2 end				) short amount, drop final sonde.

Mission Scientist's Log

Flight No **B**.267..... Date 2/2/07 Name R. COTTON Page 4 of 5
.....

GMT	Run / Profile	Height	Hdg	GPS Position	Remarks (clouds, weather, visibility, winds, sea state etc.)
				Turb - cont.	
				Air much clearer to south (A) than	
				north (B), so shift run slightly south.	
10792.	$R3_{ent}$			Assume repeat airmass.	
				V. turb. until ~1042 hazy.	
104352	$R4_{st.}$	FL350		drop sonde during turn just before point A. o/c - 1/8 Ci around.	
105820				clear sky, still T: -57 T_d: -66°C	
				This last run always in clear air o/c Ci.	
				drop last sonde ~~during getting turn~~	
110654	$R4_{ent}$	FL350		~~last~~ at run end pt B.	
111142	$R5_{st.}$	FL350	T: -61°C	T_d: -65°C on our track clear. o/c Ci	
				very diffuse Ci occasionally.	
* Last	run	is best	for clear air *	To west, lot of Sc Cu	
				Some Cu over land. to east.	
111850	$R5_{ent}$				
112624	$A2_{st.}$	FL350		55°24.0	Very hazy. but cloud gaps
				1°18.0	to keep within BA will interrupt
					profile, platform turn.
					But running out of time, so only
					interpolate 1 turn to be at B at 50 ft.
115600	FL 072	T: -7.6°C	T_d:	-23°C	visibility low.
115445	P_2				Turn at 2000 ft.
115624	P_2 reverse.			F: 20°	Td: -2°C

Mission Scientist's Log

Flight No **B**265 Date 2/2/07 Name R. COTTON Page 5 of 5

GMT	Run / Profile	Height	Hdg	GPS Position	Remarks (clouds, weather, visibility, winds, sea state etc.)
					Low level very hazy
1205/30	P2 end	5.0ft			
1213-	RC Orbit	10ft			much clearer now.
1/2	QC end	10ft			
					Transit back to Cranfield

Mission Scientist's Log

METOP C IASI)

Flight No **B** 265 Date 2/2/67 Name R. COTTON Page 1 of 5

GMT	Run / Profile	Height	Hdg	GPS Position	Remarks (clouds, weather, visibility, winds, sea state etc.)
					Take off cranfield.
					Very hazy, some mist.
080300		FL122			During climb to transit, in clear air
					but t/t above 6/8 Sc below. (near base)
08410		FL135			Int. cloud base turbulence
080650		FL150			out of cloud Generally.
					2D sees snow, T w increases.
0809					In/out of thin As/Ac
081000					T = -16.1, Td = -16.9
					Aircraft anti-icing on
081345		FL150			near base of As. limited visibility.
081640 -	50				In/out cloud.
081830		FL150	331	53°54.0 0°18.0	Passing thro. full-strength front.
082010					Thro thin cloud layer.
082330		FL150			Exit frontal zone
					Clear above t/t cloud below, but
					thinning out ahead of us.
0832		FL115		54°54.0 0°54.0	T-t clearing Sc below.
					Now, ahead is cloud free but hazy.
					Some very isolated cloud.
083330		FL088			Ta: ~~-~~9.3 Td: -16
					but is olated mid-level cloud
083600					just in sky, to avoid, pass to left.

Mission Scientist's Log #2

Flight No **B**...265 Date 2/2/07 Name P.H.B. Brown Page 1 of .....

GMT	Run / Profile	Height	Hdg	GPS Position	Remarks (clouds, weather, visibility, winds, sea state etc.)
0756	in				T/o Cranfield. mist
					Patchy Sc /
0805		15000			Patchy As layer.
/					3 min in cloud, 0.1 gm^{-3} peak
082330		"	330	54 12.0 0 30.0 W	Just under edge of
/					frontal cloud. Looks clear
/					ahead
084014		100			Start R1 small patch
/					of Sc on R near start
084442					Nudging L to avoid
					small patch of Sc.
084900		"			Just coming under another
					small cloud.
85100					Clear above again.
085420				Shallow	Turn back onto track.
/					PCASP / CN concs v. low
					SID 1 ~ 10/sec SID2 ~ 1
090525					Heimann cal finish.
					Tsurf ~ 7.3.
090854					End R1
/					Ci visible over land
091202		50	189	57.00 -1 42	Start P1
		2500			Out of mixed layer.
0917		4500 /			Frontal cloud visible at
					low level on S & E horizon.

Mission Scientist's Log #2

Flight No B265 Date 2/2/07 Name ..... Page 2 of .....

GMT	Run / Profile	Height	Hdg	GPS Position	Remarks (clouds, weather, visibility, winds, sea state etc.)
0931		19000↑			Neph picks up aerosol
/				in BL ok, below ~ 1100 m.	
0932				Small patches of thin Sc to left of	
				track.	
0952		31200	173		contrail -52.2 / -59.5
				Cu on	horizon to NE as expected.
0955		33000			End P1
095908					Start R2 / Sonde.
100204					sonde 2 - disappeared into stbd contrail.
/					-55.6 / -62.6
100508					Sonde 3
1005					contrail intermittent.
1006		"	340		clear above & below..
100803					Sonde 4 sonde 2 GPS appeared.
101255					Sonde 5 ~~sonde 2~~
101424					Thin Ci below.
101545					Sonde 6 Seen on Heimann
101825					End R2
		33000			Start ~~R~~ P2 Track displaced
102536			160		~~P~~ Sonde 7 due to wide turn.
102810		35000			End P2/Start R3
102837					Sonde 8 contrail intermittent -54.5 / -64.7.
					Clear below.
					Ci streak ~ to left of
					track & below.

Mission Scientist's Log #2

Flight No **B**...265 Date ...2/2/07 Name ..... Page 3 of .....

GMT	Run / Profile	Height	Hdg	GPS Position	Remarks (clouds, weather, visibility, winds, sea state etc.)
103138		35000	162		Sonde 9 clear below
103438					Sonde 10
103857					Sonde 11
103926		35000			End Run south of A.
					[illegible]
				Over	land briefly during turn.
104349		35000			Start R4 12 mi left of extended track.
					Sonde 12
104720		"	006		Sonde 13.
105020					Sonde 14 went close to port contrail plume.
105320		"	344		Sonde 15
105820					Sonde 16.
110120					Sonde 17 remains clear below on Heiman.
110635					Sonde 18 went into stbd contrail.
				may be	persisted trail here.
110654					End R4. -60.6/-66.6
111143		35000			Start R5 11 mi displaced from AB line.
1123		"			End R5 clear below throughout.
112625		"	○		Start Profile 3
		31000			contrail now start. -52.5/-62
					stop contrail -50.6
		21000			T profile following v closely the
					original ascent. RH similar.
		15000			Bit moister than before.

3h

Mission Scientist's Log

#2

Flight No **B**263 Date 2/2/07 Name ..... Page 4 of .....

GMT	Run / Profile	Height	Hdg	GPS Position	Remarks (clouds, weather, visibility, winds, sea state etc.)
—				Extra	little inversion around 700 hPa
				otherwise v. similar.	
120141		50'			End P3
122330		100'	174		End Run 6
					Climb up just warmer than P3.
1308ish					Land. c. 5h 13.

CLOUD PHYSICS LOG Flight B265

Date:2 feb 07	Operator: jc	DRS Time:	DAU1 Time:	DAU2 Time:	DAU3 Time:	Aux1 Time:	Aux2 Time:	Page 1 of 1

G.M.T	PCASP		FFSSP	SID1	SID2	2D2-C		2D2-P		CIP25			CIP100			Habit	Remarks
	Conc/cc	Mean R	Block TX	Count	Count	Conc/L	Max size	Conc/m3	Max size	Conc m3	Max size	LWC	Conc m3	Max size	LWC		
080500																	Log restarted after word crash!
																	Outbound transit
																	FFSSP logging
																	Sid1 logging
																	Sid2 logging
																	Precip logging
081000	300	0.12	107	200	10	23	775	?		?							Snow
																	CIP showing no counts
																	2dp showing some particles but many noise counts, temp –16C
083000																	2dp in clear air producing bursts of 1 bit noise.
084016	32	0.1	143	10	1	0	0	0	0	?							Clear air run 1
085000	19	0.14	143	20	1	0	0	0	0								
090000	20	0.12	144	20	2	0	0	0	0								
090500	35	0.11	145	20	2	0	0	0	0								
090854	55	0.10	145	20	2	0	0	0	0								End run 1
091202	63	0.01	146	20	2	0	0	0	0								Start profile 1
091500	25	0.11	146	20	2	0	0	0	0								2000ft
091700	8	0.11	146	0	0	0	0	0	0								Fl045
091830	8	0.10	146	0	0	0	0	0	0								Fl060
092015	3	0.07	146	0	0	0	0	0	0								Fl075
092140	4	0.12	146	0	0	0	0	0	0								Fl090
092315	8	0.11	146	0	0	0	0	0	0								Fl105
092440	7	0.11	146	0	0	0	0	0	0								Fl120
092610	20	0.08	146	0	0	0	0	0	0								Fl135
092740	8	0.11	146	0	0	0	0	0	0								Fl150
092900	6	0.12	146	0	0	0	0	0	0								Fl165
093120																	PCASP off – noise from sws motor
093240	off	off	146	0	0	0	0	0	0								Fl200
Cloud physics console unattended during sonde dropping																	
111640	on	on															PCASP on - sws motor off
																	2dc intermittent 1 bit noise
112320								off	off								2dp noise – alignment – switched off @–56C
113000	Inboard screen collapsed on power switches despite blocking box. SID1 computer restarted with scan disk – saved files in file0001.chk – may be recoverable																
	Power to precip lost – computer not restarted in order to protect data files. Will attempt recovery with appropriate tools																
114400	Sid1 restarted as b265b																

CLOUD PHYSICS LOG Flight B265

Date:2 feb 07	Operator: jc	DRS Time:	DAU1 Time:	DAU2 Time:	DAU3 Time:	Aux1 Time:	Aux2 Time:	Page 2 of 2

G.M.T	PCASP		FFSSP	SID1	SID2	2D2-C		2D2-P		CIP25			CIP100			Habit	Remarks
	Conc/cc	Mean R	Block TX	Count	Count	Conc/L	Max size	Conc/m3	Max size	Conc m3	Max size	LWC	Conc m3	Max size	LWC		
1201131			150	20	3												50ft end of profile, start of run 6 100ft
120600			150	20	1												
121100			151	10	2												
121600			152	10	3												
122100			153	10	3												
1223			153	10	3												End run 6 end science

FAAM Dropsonde Flight Log

Flight No.	B265	Date	02 Feb 2007
Page No.	1 of 1	Operator	Doug Anderson

GMT	Sonde No.	Event	Comments
095903	1	Launch	261.70 -55.40 33.87 304.30 45.80 - 19.20 -1.339800 55.455600 10065.70
101110	1	Splash Down	1030.83 7.93 72.05 304.80 9.78 - 9.84 -1.147892 55.312353
100203	2	Launch	261.90 -55.80 43.37 308.20 48.50 - 16.10 -1.310000 55.708100 0059.60
101349	2	Splash Down	9999.00 99.00 999.00 293.15 11.01 - 11.67 -1.120250 55.566497 99999.00
100506	3	Launch	261.40 -55.50 40.20 307.80 45.90 - 18.50 -1.393600 55.943100 10071.80
101646	3	Splash Down	9999.00 99.00 999.00 292.04 10.42 – 10.92 -1.192575 55.799446 99999.00
100805	4	Launch	261.90 -55.30 39.75 310.40 50.20 – 15.70 -1.469217 56.171253 10042.88
102005	4	Splash Down	9999.00 99.00 999.00 296.02 11.37 - 11.37 -1.261716 56.025077 99999.00
101257	5	Launch	261.60 -55.80 41.69 312.60 48.80 - 16.90 -1.600200 56.562700 10068.10
102431	5	Splash Down	9999.00 99.00 999.00 277.49 10.81 - 11.34 -1.394603 56.405628 99999.00
101545	6	Launch	261.40 -55.50 44.64 312.10 51.60 - 15.20 -1.676200 56.785400 10074.20
102729	6	Splash Down	9999.00 99.00 999.00 341.52 2.03 - 1.25 -1.462257 56.626259 99999.00
102530	7	Launch	251.90 -58.10 55.41 299.20 43.30 - 17.40 -2.023100 56.618000 10312.30
103715	7	Splash Down	9999.00 99.00 999.00 274.49 9.98 - 10.33 -1.813875 56.453934 99999.00
102836	8	Launch	238.60 -55.70 32.86 303.90 37.40 - 20.00 -1.705700 56.299800 10662.10
104045	8	Splash Down	9999.00 99.00 999.00 292.86 11.72 - 11.47 -1.490427 56.133716 99999.00
103139	9	Launch	238.20 -55.30 29.66 302.00 29.10 - 17.40 -1.430600 55.987900 10673.80
104323	9	Splash Down	1030.76 7.34 75.92 286.17 12.84 - 11.21 -1.223526 55.838351 86.50
103439	10	Launch	238.20 -55.70 29.90 294.90 29.30 - 17.50 -1.302900 55.659900 10674.40
104656	10	Splash Down	9999.00 99.00 999.00 33.53 0.55 0.00 -1.104053 55.518034 99999.00
103857	11	Launch	238.70 -56.30 29.27 283.70 28.60 - 17.80 -1.144300 55.182000 10660.10
105112	11	Splash Down	9999.00 99.00 999.00 290.54 8.13 - 8.35 -0.956099 55.050389 99999.00
104421	12	Launch	238.10 -56.30 26.96 307.90 31.10 - 16.90 -1.491000 55.094700 10676.90
105632	12	Splash Down	9999.00 99.00 999.00 293.74 8.39 - 10.86 -1.315765 54.959249 99999.00
104721	13	Launch	238.10 -56.20 29.71 311.30 37.60 - 17.00 -1.335800 55.366200 10675.40
105928	13	Splash Down	9999.00 99.00 999.00 305.12 11.31 - 11.24 -1.145804 55.222513 99999.00
105021	14	Launch	237.90 -57.70 34.80 314.50 44.30 - 15.70 -1.298300 55.633700 10680.90
110220	14	Splash Down	1030.88 7.56 70.14 296.79 12.22 - 11.15 -1.104512 55.481936 65.63
105318	15	Launch	238.10 -55.20 24.90 315.40 36.90 - 14.30 -1.376800 55.891100 10676.60
110519	15	Splash Down	1029.95 7.56 71.58 296.25 13.58 - 10.84 -1.175575 55.734595 69.95

105827	16	Launch	238.30 -57.00 31.90 318.40 52.20 -14.80 **-1.523500** **56.335900** 10670.80
111033	16	Splash Down	1030.92 7.28 70.35 288.71 11.30 -10.40 **-1.304777** **56.156349** 99.80
110121	17	Launch	238.10 -60.10 46.48 313.50 60.70 -15.40 **-1.606100** **56.580600** 10676.30
111337	17	Splash Down	1029.89 7.46 66.60 285.14 11.78 -10.98 **-1.381228** **56.403541** 99999.00
110636	18	Launch	237.90 -61.10 48.03 309.50 58.10 -15.10 **-1.734500** **57.012600** 10680.80
111859	18	Splash Down	1030.03 7.55 66.41 296.97 10.50 -10.90 **-1.502589** **56.831640** 125.07

SWS and SHIMS FLIGHT LOG SHEET

Flight #	B265	Date	2/2/07	Operator(s)	JEFF BROWN	log page	1 of 3

Note to operator: Indicate whether entry refers to SWS or SHIMS

Time	Run id	Alt/FL	Mirr Pos	Int Times		Remarks	SWS	USH	LSH
				Vis	NIR				
0626		—				All modules working OK.			
						"Video" circuit breaker now			
						working.			
0739				1000			✓		
				1000				✓	
				1000					✓
0758			174° A			Head to Nadir for transit			
						7/8 St/Sc 5/8 Ac/As			
						1/8 Ci			
0804		14000	174° A			Into Ac/As layer at FL140			
0816		15000	174° A			Ac/As			
082724		15000	174° A	750		Dark		✓	
082740		15000	174° A	750		Scene		✓	
083735		1200	6° F			SWS Head To Zenith			
084016	R1	100	6° F			Start of run			
084907	R1	100	6° F			Under small patch low cloud			
085100	R1	100	6° F			Cloud free again			
090854	R1	100	6° F			End of run.			
091946	P1 ↗	8000	6° F	750		~~Scene~~ Dark			✓
092018	P1 ↗	8000	6° F	750		Scene			✓
092450	P1 ↗	13000	6° F	1000		DARK			✓
092525	P1 ↗	13000	6° F	1000		Scene			✓
092816	P1 ↗	16500	6° F	500		DARK	.	✓	
092847	P1 ↗	16500	6° F	500		Scene		✓	
093050	P1 ↗	18800	6° F			MOTOR ON - PCASP DIES!			
093558	P1 ↗	21400	6° F	400		DARK			
				400					
093731	P1 ↗		6° F			DARK ALL - NO FLAT LINES			
						RESET SHUTTERS + DARK			
						ALL AGAIN - SORTED!			
093828	P1 ↗	23900	6° F	1000		SCENE ALL	✓		
			6° F	400				✓	
			6° F	1000					✓
094015	P1 ↗	26000	6° F	750		DARK			✓
094029	P1 ↗	26000	6° F	750		Scene			✓
0943	P1 ↗		174° A			Head to Nadir ready for run			
094447	P1 ↗	28700		1000		DARK			✓
094546	P1 ↗	28700		1000		Scene			✓
095844	R2	33000	174 A	350		Dark all		✓	
095925	R2	33000	174 A	750		Scene all			✓
						SWS HEAD FROZEN AT 20° F			
100400	R2	33000	174 A			Managed to get back to Nadir			
1010	R2	33000	174 A			In/above thin Ci	✓		
101124	R2	33000	174 A	500		DARK ALL	✓		
101153	R2	33000	174 A	500		Scene ALL			✓
1014						Motor off as SWS head (not rotating/moving) slightly (with vibration of A/C)			
1023						Motor Back on			
103550	R2	35000	174 A	750		DARK	✓		
103605	R2	35000	174 A	750		Scene	✓		
1040		35000	6 F			SWS Head To Zenith			
104350	R3	35000	6 F						

* SWS head 'refused' to sit at 177 AFT + kept reverting back to 176° AFT. Same happened when set to 171 AFT. POSSIBLY SLIP STREAM HITTING HEAD WINDOW.

SWS and SHIMS FLIGHT LOG SHEET

Flight #	B265	Date	2/2/07	Operator(s)	JEFF BROWN	log page	2	of	3

Note to operator: Indicate whether entry refers to SWS or SHIMS

Time	Run id	Alt/FL	Mirr Pos	Int Times		Remarks	SWS	USH	LSH
				Vis	NIR				
104450	R2	35000	6° F	1000		DARK ALL	✓		
104515	R2	35000	6° F	300		Scene ALL		✓	
104700	R2	35000	174° F			SWS HEAD TO ZENITH			
104744	R2	35000	174° F	750		DARK	✓		
104806	R2	35000	174° F	750		Scene	✓		
112713	P3 ↘	34500	174° F	250		Dark all	✓	✓	
112740	P3 ↘	34500	174° F	1000		Scene all		✓	✓
	P3 ↘					Angle Rose requires			
	P3 ↘					re-aiming.			
114650	P3 ↘	9500	174° F	1000	~~1000~~	Dark	✓		
114721	P3 ↘	9500	174° F	1000	~~1000~~	Scene	✓		
120508	R3	100	6° A			SWS Head to Zenith			
120536	R3	100	6° A	750		Dark	✓		
120556	R3	100	6° A	750		Scene	✓		
120649	R3	100	6° A			Sudden rise on LSH			✓
						Pond ice falling off?			✓
120937	R3	100	6° A	300		Dark		✓	
121003	R3	100	6° A	300		Scene		✓	
122000	R3	100	174° F	1000		Scene	✓		
	R3	100	174° F	1000		Dark	✓		

ARIES flight log

Flight: B265 | page 1 of 4

Date: 02/FEB/'67 | Operator(s): S. ROGERS | Res: 1 | Gain A: 2 B: 2

Loc./Notes: NORTH SEA / CLEAR SKIES / METOR

Scans: either "[IGMs]X[co-adds]", or "[stop DRS time]" if in start/stop, or "[macro name]". View: mirror angle.

DRS time	Flt ptrn	Scans	View	Shtr	HBB	CBB	Comments
06:32:30	Ground	1×60	C	C	71	31	
06 33	"	"	H	C	71	31	
07 55	TAKE OFF						
08 11 00	Transit FL 150?	1×60	C	C	71	31	Transit - mostly in cloud.
08 11 34		"	H	C	71	31	
08 39 58	R1	1×60	C	C			
08 40 33		"	H	C	71	31	
08 41		240×1	N	C	71	30	
08 43 22		1×60	C	C	71	31	
08 44 06		"	H	C			
08 44 47		240×1	Z	O	70	31	Clear above
08 47 50		1×60	C	C			
08 48 25		"	H	C	71	31	
08 49 10		240×1	Z	O	70	30	Some Cu above clear at end?
08 52 10		1×60	C	C	71	31	This horizon at
08 52 51		"	H	C	71	31	
08 53 30		240×1	Z	O	70	31	Clear above. Some v. small Cu.
08 56 20		1×60	C	C	71	31	
08 56 54		"	H	C	71	31	
08 57 32		240×1	Z	O	70	31	Open shutter late. Clear above.
09 00 30		1×60	C	C	71	31	
09 01 08		"	H	C	71	31	
09 01 50		180×1	Z	O	70	31	Clear above
09 04 30		1×60	C	C	71	31	
09 05 04		"	H	C	71	31	
09 06 19		120×1	Z	O	70	31	Clear above
09 08 25		1×60	C	C	71	31	
09 09 01		"	H	C	70	31	End of run at start of H view
09 12	P1 ↑						From several thousand feet up, the preceding run looks to be in some haze.

ARIES flight log

Flight: B265 | page 2 of 4

Date: | Operator(s): | Res: | Gain A: B:

Loc./Notes:

Scans: *either "[IGMs]X[co-adds]", or "[stop DRS time]" if in start/stop, or "[macro name]".* ***View:*** *mirror angle.*

DRS time	Flt ptrn	Scans	View	Shtr	HBB	CBB	Comments
09 59 06	R2	1 x 60	C	C	71	30	
09 59 36		"	H	C			SWS unable to look up - top coils.
10 00 20		180 x 1	Z	O	70	30	Clear above. (v.v. thin Cs ???)
10 02 50		1 x 60	C	C	71	31	
10 03 24		"	H	C	70.5	30.5	
10 04 05		240 x 1	N	C	70.5	30	Haze below, white horses visible on sea.
10 06 16		1 x 60	C	C	70	31	
10 06 51		"	H	C	70	31	
10 07 37		240 x 1	N	C			Some thin cloud below near end of frame
10 09 46		1 x 60	C	C	70	31	
10 10 20		"	H	C			
10 10 58		240 x 1	N	C	71	30	Thickening cloud below
10 13 07		1 x 60	C	C	70	30	
10 13 40		"	H	C	71	31	
10 14 32		240 x 1	N	C	71	30	Cloud below. fairly uniform
10 16 39		1 x 60	C	C	70	30	
10 17 21		"	H	C			
10 23.	P2 ↑						
10 28 16	R High	1 x 60	C	C	71	31	Some confusion here - didn't stop when expected
10 30 10		1 x 60	C	C			
10 30 46		"	H	C			
10 31 25		120 x 1	Z	O	70	31	V. thin Cs above ?!
10 33 20		1 x 60	C	C			
10 33 54		"	H	C			
10 34 31		240 x 1	N	C	71	31	Fairly clear below, some haze
10 36 09		1 x 60	C	C	71	31	
10 36 42		"	H	C	70	30	
10 43 31	R Higher	1 x 60	C	C			
10 44 02		"	H	C			
10 44 40		60 x 1	Z	O	70	30	
10 45 45		1 x 60	C	C			
10 46 20			H	C	71	30	

ARIES flight log

Flight: B265	page 3 of 4
Date:	Operator(s):	Res:	Gain A: B:
Loc./Notes:	

Scans: *either "[IGMs]X[co-adds]", or "[stop DRS time]" if in start/stop, or "[macro name]".* ***View:*** *mirror angle.*

DRS time	Flt ptrn	Scans	View	Shtr	HBB	CBB	Comments
10 47 00		240x1	N	C	71	31	fairly clear below. White horizon visible
10 49 07		1x60	C	C	71	30	
10 49 43		"	H	C	71	31	
10 50 19		240x1	N	C	71	31	— " —
10 52 30		1x60	C	C	71	30	Turbulent.
10 53 03		"	H	C			
10 53 46		180x1	N	C			fairly clear, some haze
10 55 25		1x60	C	C	71	30	
10 55 57		"	H	C			
10 56 35		240x1	N	C	71	30	Still bumpy. A little hazier.
10 58 42		1x60	C	C	71	30	
10 59 17		"	H	C	71	30	
10 59 59		180x1	N	C	71	31	Hazy below, sea still visible.
11 01 36		1x60	C	C	71	30	
11 02 09			H	C			
11 02 55		180x1	N	C	71	31	
11 04 33		1x60	C	C	71	30	
11 05 11		"	H	C			
11 11 43	R	1x60	C	C			
11 12 18		"	H	C	71	30	
11 13		300x1	N	C	71	31	
11 15 42		1x60	C	C	71	31	
11 16 15		"	H	C			
11 16 54		300x1	N	C	71	30	Hazy below. Sea visible
11 19 30		1x60	C	C	70	31	
11 20 03		"	H	C			
11 20 42		240x1	N	C	71	31	A bit bumpy
11 22 49		1x60	C	C			
11 23 24		"	H	C	71	31	
11:26	P ↓						

ARIES flight log

Flight: TB265 | page 4 of 4

Date: | Operator(s): | Res: | Gain A: B:

Loc./Notes:

Scans: *either "[IGMs]X[co-adds]", or "[stop DRS time]" if in start/stop, or "[macro name]".* ***View:*** *mirror angle.*

DRS time	Flt ptrn	Scans	View	Shtr	HBB	CBB	Comments
12 01 02	100ft.	1×60	C	C			13 20
12 01 38		"	H	C	71	30	
12 02 15		120×1	N	C	71	31	Some white horiz. Not too choppy slightly bumpy ride Alan wouldn't like it.
12 03 25		1×60	C	C			
12 03 59		"	H	C			
12 04 39		240×1	Z	O	70	30	Clear above. slight haze on horizon.
12 07 35		1×60	C	C	71	31	
12 08 08		"	H	C			
12 08 46		180×1	Z	O	71	31	Clear above
12 11 10		1×60	C	C	71	30	
12 11 43		"	H	C			
12 26		180×1?	Z	O			
12 14 13		1×60	C	C	71		Heiman cal unit Head? Retrying.
12 14 55		"	H	C			
12 15 52		180×1	Z	O			16:25 shutter. Clear above Haze on horizon
12 18 20		1×60	C	C			
12 18 53		"	H	C	71	31	Heiman cal unit partially working
12 19 45		120×1	N	C	71	31	
12 20 52		1×60	C	C	71	31	
12 21 28		"	H	C	71	31	
							Climbing. As before, haze at low level is obvious from above.

Microwave Radiometers FLIGHT LOG	Date	2/1/07	Flight	B265	log pages	
Operator(s)	JB		Campaign	IASI Cal Val		
Departure	Cranfield		Arrival	Cranfield		

System start

MARSS

Visual pod inspection						•
Close 3 SSP circuit breakers						•
Close all MARSS circuit breakers						•
FERA on				at time	0629	
Temperature controller initial temps	Ch16	16.8	Ch 17	16.7	Ch18	16.3
Temperature controller set points		54°C		58°C	-20	40°C
MARSS CPU on				at time	06:30	
Initial target temperatures	Hot	288.8		Cold		284.0
Target heating						•
*** CHECK SCAN HEAD CLEAR ***						•
Scanning on (LMD box)				at time	0633	
Scan indication		Monitor	•		Visual	•

Deimos

Close all Deimos circuit breakers	Not Switched on					
Turn on Deimos CPU						
*** CHECK SCAN HEAD CLEAR ***						
Start Deimos Software				at time		
Initial target temperatures	Hot			Cold		
Target heating						
Scan indication		Monitor			Visual	
Weather	Cloud	Low cloud 8/8		Precip	drissel	
	Surface	Dry		Pressure		
	Other					

System functionality check

(after initial system warmup, approx 1 hour)

PC to DRS Time error	$t_{PC}=t_{DRS}$ +	0		at time	0638	
Brightness temps 'sensible'						•
Target temps	MARSS:	Hot	344.5	Cold	284.8	
	Deimos:	Hot		Cold		

Channel gains 'sensible'	Ch1 A (-)	Ch3 A (-)	Ch1 B (-)	Ch3 B (-)	
	Ch16 (40-44)	Ch17 (45-49)	Ch18 (40-44)	Ch19 (40-44)	Ch20 (44-48)
	42.88	33.0	38.5	40.72	42.9

Power changeover

Headset on before start			•
Listen to engine start sequence	4, 3, 2, 1.		•
LMD off (3 switches, bottom to top)			•
Exit Deimos Software (x)			
POWER CHANGEOVER			
LMD on (3 switches, top to bottom)	then pushbutton		•
Restart Deimos Software			
System running again		at time	

Flight #	B	Date		Operator(s)		log page	2	of	2

Time	Run id	Alt/FL	*Remarks*	Sys
0710	**Pre**		Ch16 started well but just got very noisy. See bmp in folder. Seems first spike was initiated by groundies on aircraft check, second by myself. A much larger second reaction. I don't think it likes me…	
0802	**trans**		SC below, broken ac above.	
0804	**Trans**		In cloud/just below, thin stratus, sc below	
0814	**Trans**		Noticed double bounce at 0802 approx.	
0818	**Trans**		Over humber.	
0830			Clear above broken sc below. Huge decrease in upper signals post cold front	
0834	**dec**		Clear below I think	
0849	**R1**		Cloud above	
0854	**R1**		Banking/Turning to left slightly	
090854	**Eor1**		Climbing and turning right at 200ft	
091202	**P1**		Climbing,small cu around.	
0919	**P1**		Bit hazy	
093250	**P1**		Profile interupt and turn right	
09560	**Eop1**		Turning right	
101200	**Sondes**		Cloud below	
101835	**Eor**		Turning left	
102100			coast	
102328			Edge of coast and climbing	
10940	**Eor**		turning	
104210			Turning and coast	
110700	**Eor**		turning	
111000			coast	
112407	**Eor**		Turning right	
112634	**P3**		descending	
112900	**P3**		Turning left	
115500	**P3**		Turning left	
1220	**Low lev**		Noise or double bounce, only slight, maybe a warm patch of water..	
122340	**Eor**		Climbing and end of science	
124630			MARSS time : 124641	

Microwave Radiometers FLIGHT LOG	Date	2/1/07	Flight	B265	log pages	
Operator(s)	JB		Campaign	IASI Cal Val		
Departure	Cranfield		Arrival	Cranfield		

System start

MARSS

Visual pod inspection						•
Close 3 SSP circuit breakers						•
Close all MARSS circuit breakers						•
FERA on				at time	0629	
Temperature controller initial temps	Ch16	16.8	Ch 17	16.7	Ch18	16.3
Temperature controller set points		54°C		58°C	-20	40°C
MARSS CPU on				at time	06:30	
Initial target temperatures	Hot	288.8		Cold		284.0
Target heating						•
*** CHECK SCAN HEAD CLEAR ***						•
Scanning on (LMD box)				at time	0633	
Scan indication		Monitor	•		Visual	•

Deimos

Close all Deimos circuit breakers	Not Switched on					
Turn on Deimos CPU						
*** CHECK SCAN HEAD CLEAR ***						
Start Deimos Software				at time		
Initial target temperatures	Hot			Cold		
Target heating						
Scan indication		Monitor			Visual	
Weather	Cloud	Low cloud 8/8		Precip	drissel	
	Surface	Dry		Pressure		
	Other					

System functionality check

(after initial system warmup, approx 1 hour)

PC to DRS Time error	$t_{PC}=t_{DRS}$ +	0		at time	0638	
Brightness temps 'sensible'						•
Target temps	MARSS:	Hot	344.5	Cold	284.8	
	Deimos:	Hot		Cold		

Channel gains 'sensible'	Ch1 A (-)	Ch3 A (-)	Ch1 B (-)	Ch3 B (-)	
	Ch16 (40-44)	Ch17 (45-49)	Ch18 (40-44)	Ch19 (40-44)	Ch20 (44-48)
	42.88	33.0	38.5	40.72	42.9

Power changeover

Headset on before start			•
Listen to engine start sequence	4, 3, 2, 1.		•
LMD off (3 switches, bottom to top)			•
Exit Deimos Software (x)			
POWER CHANGEOVER			
LMD on (3 switches, top to bottom)	then pushbutton		•
Restart Deimos Software			
System running again		at time	

Flight #	B	Date		Operator(s)		log page	2	of	2

Time	Run id	Alt/FL	*Remarks*	Sys
0710	**Pre**		Ch16 started well but just got very noisy. See bmp in folder. Seems first spike was initiated by groundies on aircraft check, second by myself. A much larger second reaction. I don't think it likes me…	
0802	**trans**		SC below, broken ac above.	
0804	**Trans**		In cloud/just below, thin stratus, sc below	
0814	**Trans**		Noticed double bounce at 0802 approx.	
0818	**Trans**		Over humber.	
0830			Clear above broken sc below. Huge decrease in upper signals post cold front	
0834	**dec**		Clear below I think	
0849	**R1**		Cloud above	
0854	**R1**		Banking/Turning to left slightly	
090854	**Eor1**		Climbing and turning right at 200ft	
091202	**P1**		Climbing,small cu around.	
0919	**P1**		Bit hazy	
093250	**P1**		Profile interupt and turn right	
09560	**Eop1**		Turning right	
101200	**Sondes**		Cloud below	
101835	**Eor**		Turning left	
102100			coast	
102328			Edge of coast and climbing	
10940	**Eor**		turning	
104210			Turning and coast	
110700	**Eor**		turning	
111000			coast	
112407	**Eor**		Turning right	
112634	**P3**		descending	
112900	**P3**		Turning left	
115500	**P3**		Turning left	
1220	**Low lev**		Noise or double bounce, only slight, maybe a warm patch of water..	
122340	**Eor**		Climbing and end of science	
124630			MARSS time : 124641	

Flight: B265

KEY

- Not Fitted
- Fitted, Not Operated
- Duff Data
- Minor Problems
- OK

Thermometers
- Cabin Temperature:
- Heimann:
- Deiced Temp:
- Non-deiced Temp:

Hygrometers
- FWVS:
- General Eastern:
- Johnson Williams:
- Nevzorov:
- Total Water Probe:

Cameras
- Downward Facing:
- Forward Facing:
- Rearward Facing:
- Upward Facing:

Navigation + Aircraft
- Cruciform GPS:
- GIN Applanix:
- INU Honeywell:
- Radar Altimeter:
- RVSM IAS:
- RVSM Static Pressure:
- XR5 GPS:

Misc Core
- AMTG:
- AVAPS:
- Cabin Pressure:
- Fax machine:
- Printer:
- S9 Static Pressure:
- Satcom C:
- Satcom H:
- Turbulence Check Press:
- Turbulence Diff Press:
- Weather Radar:

DLUs:
- DLU AERACK:
- DLU BBR Lower:
- DLU BBR Upper:
- DLU Core Chem:
- DLU Core Consoles:
- DLU Port Aft:
- DLU Port Fwd:
- DLU Stbd Fwd:

Radiometers
Lower:
- BBR (clear) Lower:
- BBR (IR) Lower:
- BBR (red) Lower:

Upper:
- BBR (clear) Upper:
- BBR (IR) Upper:
- BBR (red) Upper:

- ARIES:
- DEIMOS:
- IR Camera:
- JNO2 Lower:
- JNO2 Upper:
- JO1D Lower:
- JO1D Upper:
- MARSS:
- SHIMS Lower:
- SHIMS Upper:
- SWS:
- TAFTS:

Cloud Probes
- 2DC:
- 2DP:
- FFSSP:
- PCASP:

- ADA:
- CCN:
- CDP:
- CIP 100:
- CIP 25:
- CPI:
- CVI:
- SID1:
- SID2:

Aerosol
- CPC 3025A:
- Filters 47mm:
- Filters 90mm:
- Neph - Dry:
- Neph - Wet:
- PSAP:

- AMS:
- CPC 3010A:
- INC:
- VACC:

Chemistry
- CO Aerolaser 5002:
- NOx TE42C:
- Ozone TE49C:
- Ozone TE49:
- SO2 TE43C:
- TDLAS (NIR) CH4:
- TDLAS (NIR) CO2:

- FAGE:
- Formaldehyde:
- NOxy:
- ORAC:
- PAN:
- PERCA:
- Peroxide:
- PTRMS:
- TDLAS (1C):
- WAS Bags:
- WAS Bottles:

Misc Non-Core
- CASI/ATM:
- LIDAR:
- LTI:
- SAW Hygrometer:

Report Created 05/02/2007 11:37:41

Last Updated: 05/02/2007 10:02:48

Faults / Incidents Log

Flight No. B265
Date: 02 February 2007

Instruments

1. Nevzorov Liquid water circuit u/s
2. Nephelometer sp data being baseline-clipped
3. Mission Scientist laptop p/s cable problem
4. Heimann Calibration on the blink. First cal good but second cal needed a bit of persuading after high level operation. Had to try three times and resulting cal was around 2 degs lower than previous.

Aircraft

Satcom H Calls
None

Pre-Flighter's Log

Date: 2/2/07 Flight No: B265. Pre-Flighter: PAPJ

Item	√ or x	Location	Action	Comments
1		Hangar	Collect Dustbin, put on a/c	
		Aircraft Cabin		
2		Core Chemistry	Gases x 3 ON	NO CO
3	✓	Cabin	All Racks Checked	
4	✓	Fwd CorCon	All reqd CBs made	
5	✓	Aft CorCon	CBs made, PCs ON	
6	✓	HORACE	Optical Disk loaded	
7	✓	HORACE	Recording data	
8	✓	HORACE	DLU Status Checked	
9	✓	HORACE	HORACE Status Checked	
10	✓	Satcom H	Power LED ON	
11	.	Nevzorov	Checked and OFF	- ?
12		GPS	Checked	no.
13		INU	Align	no
14	✓	Cameras Pictures	Checked x 4 OK	
15		Core Chemistry	Instruments Checked OK	no CO
16		Core Chemistry	CO Flows Checked OK	no
17		FWVS	Set up	no not fitted
18	✓	Video x 2	Records okay, Rewind	
19	✓	Delced Rosemount	Heater Checked / Set	
20	✓	Heimann	Calibration Checked	
21		TWC	ON & Checked	not fitted
22	✓	GE	Balance checked	
23		INU	Navigate then back to Align	no
24	✓	Hubs x 4	Checked ON	
25	✓	Fwd Console	Miss. Sci Laptop CB made	& CB on Port Fwd SSP
26	✓	CNC	Butanol filled	
27		CGPS	Set up	no
28	✓	Miss. Sci Laptop	Checked Onboard	

External Checks overleaf →

Pre-Flighter's Log

Item	√ or x	Location	Action	Comments
		External		
29	✓	Turb Probe	Clean if reqd, Photo taken	
30	✓	JW	Cleaned & Checked	
31	✓	DI Rosemount	Cleaned & Checked	
32	✓	NDI Rosemount	Cleaned & Checked	
33	✓	Nevzorov	Cleaned/windings checked	
34	✓	GE	Cleaned & Checked	
35	✓	Lower BBRs	Domes cleaned/checked	
36	✓	Camera Windows	Cleaned	
37	✓	Heimann	Lens checked OK	
38		TWC Cover	Fitted if required	not fitted
39	✓	All other covers	Removed	
40	✓	Dustbin	Returned to hangar	
41	✓	Tools	Check ALL in Toolkit	
42	✓	Tools	Avalon informed	
		Avalon Checks		Signed
43	✓	Upper BBRs Checked & Cleaned		
44	✓	ICEX applied		
45	✓	Traps empty (weekly only)		

MISSING LOG SHEETS:

The following log sheets are not available for flight B265:

Log	Reason
Cloud Physics Processing	Awaiting processing completion
Core Chemistry	pre flight only, unmanned operation on auto calibrate so no In Flight log

Document control

Revision	Date	Author	Comments
r0	26 Mar 2007	Doug Anderson	Initial version missing the above noted logs
r1			
r2			

VIDEO RECORDINGS:

3 x Upward Facing Cameras
3 x Downward Facing Cameras

Digital8 video recordings from this flight reside with :

Philip Brown

Manager, Cloud Physics Research
Met Office
Cordouan 2
FitzRoy Road
Devon
EX1 3PB
UK

Tel: +44 (0)1392 886740

E-mail: phil.brown@metoffice.gov.uk